

TELLER HEALTH CLINIC



ALASKA RURAL PRIMARY CARE FACILITY ASSESSMENT AND INVENTORY SURVEY REPORT

FEBRUARY 28, 2002



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1. EXECUTIVE SUMMARY

A. OVERVIEW

The purpose of this report is to document rural community health program clinic needs. Those needs have been assessed from several perspectives. This is the second stage of the planning and implementation process for improving the quality of rural primary care through capital improvements to community clinics.

The first stage was development of the "Alaska Rural Primary Care Facility Needs Assessment" dated 10/23/2000. The purpose in part of this effort was to establish base lines for the planning and implementation to follow. This second stage is to document rural community health clinic needs and conditions from several perspectives as follows:

- 1) A spatial assessment involving spaces (as-built floor plan) for comparison with pre-established Alaska Rural Primary Care Facility (ARPCF) space basis, as set forth in the ARPCF needs assessment dated 10/23/2000.
- 2) A code and condition survey of the existing facility
- 3) Identification of a site for a new facility (if applicable/decided) and the status of services to that site (road, electricity, water, sewer, etc.).
- 4) Documentation of functional inputs as communicated by local people or observed by the assessment team (Note: functional planning was a component of the needs assessment in the stage 1).
- 5) Development of options to facilitate programmatic and technical needs and deficiencies,
- 6) Costing of those options and
- 7) Recommendations as to the option or options that best address the clinic need and deficiencies¹.

ARPCF clinic basis were standards established in stage 1 based on population. They translate into three clinic sizes as follows:

Small Clinic

Population	20-100
Space Standard	1,535 gsf (heated)

Medium Clinic

Population	101-500
Space Standard	1,989 gsf (heated)

Large Clinic

Population	501+
Space Standard	2,459 gsf (heated) ²

¹ There are only four options available in any rural community as follows: 1) New Facility, 2) Existing Facility renovations and or additions, 3) limited scope renovations and/or additions – driven by committed funding from either capital or operating perspectives (this option is not costable without scope or funding definition, 4) status quo (no change) (note: any of these options can apply to combined facilities existing or envisioned.

² The intent of the code and condition survey is to identify and cost deficiencies inclusive of spatial deficiencies. The accumulation of those costs is then intended to be compared to the cost of a new clinic. If the costs of renovations and additions exceed 75% of new construction then a new clinic option is considered viable.

Teller has a population of 268 (2000 Census). This qualifies it for a medium sized clinic of 1,989 gsf. The existing clinic is in a combined facility with tribal offices. The existing clinic is 844 gsf resulting in a deficiency of 1,145 gsf. The facility was constructed in 1975. It is a residential grade wood frame structure on treated wood pads (no posts) with T111 siding and metal roof. A drawing A4 "Renovation and Additions Implications Floor Plan" has been prepared as one basis along with code and condition deficiencies for assessing the renovations and additions option cost. This option would displace tribal offices.

Contextual community issues and perspectives are as follows:

- The clinic is across the street from the washeteria, water treatment and storage, and school complex. It has direct water service and a septic tank. The community does not have piped water and sewer. It is still trying to find an adequate water source. This was reported to be one of the conditions for sewer and water system eligibility. The community wants to eventually install underground piped water and sewer system. This issue is, in part, contingent upon the available of adequate water source. The mayor felt that the existing location was important to retain under current utility conditions.
- The nearby community sea wall is experiencing problems. Erosion is attacking the community's sewage lagoon.
- The community would like a new clinic.

B. RENOVATION/UPGRADE AND ADDITION

This option is as previously discussed under A Overview. Its probable impacts are diagramed in drawing A4, which is an overlay of ARPCF spaces onto the existing floor plan. The existing Teller clinic as compared to the program is deficient 1,145 gsf in area. It is in a very depleted condition. The cost of renovations and addition is more than the cost of new construction. Therefore, the consulting team's recommendation is for a new clinic.

C. NEW CLINIC

This option is as cost summarized in Section A Overview. It is based on ARPCF space standards set in Stage I of this planning process and as costed under section 6 new clinic analysis of this report for a medium size clinic. The cost of renovations and addition is more than the cost of new construction. Therefore, the consulting team's recommendation is for a new clinic.

Community representatives at the time of the survey expressed interest in a new clinic. However, community sewer and water problems may limit new site options. The community needs to do more work on securing a new site. If a new site with sewer and water cannot be found it may be best to consider funding the higher cost renovation and addition option.

2. GENERAL INFORMATION

A. PURPOSE OF REPORT AND ASSESSMENT PROCESS

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design, and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 3 and 4. The information gathered will be tabulated and analyzed according to a asset of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was revised by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. ASSESSMENT TEAM

The survey was conducted on December 11, 2001 by Robert F. Bezek, Architect, Bezek Durst Seiser, Inc. and Charlie Chien M.E. PDC, Inc., and Donna Mears, ANTHC. ANTHC made introductions and conducted village briefings to ensure complete understanding of the inspection process. Village contacts were: Amelia Milligrock, Health Aide; Melanie Wasku, Health Aide; Freida Oquillua, Health Aide; and Mary Olanna, Clinic Travel Clerk. Team members who assisted in the preparation of the report from information gathered included members of the field team above and Robert Bezek, Bezek Durst Seiser, Inc., and Charlie Chien M.E. PDC, Inc.

C. REPORT FORMAT

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to building code compliance, general facility condition, and spatial deficiencies. The written report includes these evaluations, in addition to sketches of building construction details and identification of potential sites (where available) for a new clinic. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. SITE INVESTIGATION

On December 11, 2001 the team flew to the sight. After an initial briefing of local persons on site the A/E team proceeded to document the facility from a code and condition perspective. This included as-building the floor plans for later comparison with the ARPCF basis. Concluding this survey, the team again met

with local people to share with them the initial findings of the survey, and to gather their inputs as to existing clinic contexts and new facility perspectives.

3. CLINIC INSPECTION SUMMARY

A. COMMUNITY INFORMATION

Population:

- ◆ 268 (2000 Census)
- ◆ 2nd Class City, Unorganized Borough, Bering Straits School District, Bering Straits Native Corporation

Location: Teller is located on a spit between Port Clarence and Grantley Harbor, 72 miles northwest of Nome, on the Seward Peninsula. It lies at approximately 65d 16m N Latitude, 166d 22m W Longitude. (Sec. 01, T003S, R038W, Kateel River Meridian.) Teller is located in the Cape Nome Recording District. The area encompasses 1.9 sq. miles of land and .2 sq. miles of water.

History: The Eskimo fishing camp called "Nook" was reported 20 miles south of Teller in 1827. A Western Union Telegraph expedition wintered at the present site in 1866 and 1867; it was then called "Libbyville" or "Libby Station." The Teller Reindeer Station was operated by the U.S. Government at a nearby site from 1892 to 1900. The station was named in 1892 by Sheldon Jackson for U.S. Senator and Secretary of the Interior Henry Moore Teller. Teller Mission, a Norwegian Evangelical Lutheran Mission, was built in 1900 across the harbor at the current site of Brevig Mission. It was renamed Brevig Mission in 1903, after the Reverend T.L. Brevig. Present-day Teller was also established in 1900 after the Bluestone Placer Mine discovery 15 miles to the south. During these boom years, Teller had a population of about 5,000 and was a major regional trading center, attracting Natives from Diomedea, Wales, Mary's Igloo and King Island. In May 1926, bad weather caused the dirigible "Norge" to detour to Teller on its first flight over the North Pole from Norway to Nome. A City was formed in 1963.

Culture: Teller is a traditional Kawerak Eskimo village with a subsistence lifestyle. Many residents today were originally from Mary's Igloo. Seals, beluga whales, fish, reindeer and other local resources are utilized. A herd of reindeer roam the area. Sale of alcohol is banned in the village.

Economy: The Teller economy is based on subsistence activities supplemented by part-time wage earnings. Fish, seal, moose, beluga whale and reindeer are the primary meat sources. One resident holds a commercial fishing permit. There are mineral deposits in the area. There is a herd of over 1,000 reindeer in the area, and the annual round-up provides meat and a cash product, which is sold mainly on the Seward Peninsula. Over one-third of households produce crafts or artwork for sale, and some residents trap fox.

Facilities: During summer, water is hauled from the Gold Run River (20 miles away) by the City water truck, and delivered to storage tanks. A few residents use their own ATVs or snow machines to haul water. During winter, treated water is delivered from a large storage tank at the washeteria, or melt ice is used from area creeks. Preliminary work has begun on a piped water and sewer system, however, a new water source must first be developed. Efforts to locate new water well sufficient to serve as new community water source has not have proven unsuccessful to date but is continuing. The school operates its own sewer system. 42 residents use honey buckets, which are hauled by the City. A few homes and facilities have septic tanks. A new landfill is under construction. The community participates in hazardous waste collection

Transportation: Teller has a road link to Nome from May to September via a 72-mile gravel road. It is easily accessible by sea and air. There is a State-owned 3,000' gravel runway with regular flights from Nome. There is no dock; goods are lightered from Nome and offloaded on the beach. Port Clarence is a natural harbor and has been considered for a deep water port.

Climate: The climate is maritime when ice-free, and then changes to a continental climate after freezing. Grantley Harbor is generally ice-free from early June to mid-October. Average summer temperatures range from 44 to 57; winter temperatures average -9 to 8. Extremes have been measured from -45 to 82. Annual precipitation is 11.5 inches, with 50 inches of snowfall.

B. GENERAL CLINIC INFORMATION

1) Physical Plant Information

The existing Teller clinic occupies 880 gsf in a combined facility with tribal offices. The total facility is 1,421 gsf. It was constructed in 1975 as reported in the Alaska Community Database. Teller's population is 268 (200 Census). Its ARPCF basis is a medium clinic at 1,989 gsf, which creates a spatial deficiency of 1,109 gsf. It is a residential³ structure consisting of metal roofing over gang nail wood trusses with painted gypsum board ceilings, supported on 2 X 6 exterior walls with T111 siding and gypsum board, on TJI floor framing with plywood soffits, on glue lam beams, on treated wood footing pads, on beach sand/gravel. The facility is connected to city water storage from across the street via an underground pipe. It has a septic tank. The city has a sewage lagoon and hopes for a community sewer and water system in the future. The facility has no Americans with Disabilities Act (ADA) features, inclusive of the single restroom. Interior partitions are 2 X 4's with gypsum board each side. It is a boiler-heated facility. It has no ventilation.

2) Community Program Sheet

Attached at the end of this section is the Community Program Sheet completed by the City of Teller.

³ The use of the term residential has the following assumed meanings:

Structural – residential live loads usually range from 20 to 40 psf. The minimum live loads for clinics should be 50 psf in the office areas. For computer use areas the load can be as much as 100 psf. Operating rooms and laboratories are generally designed with a live load of 60 psf. With the village clinics being relatively small, I would probably design the entire floor system at 60 psf with the exception of the record keeping area. This area should be designed for a minimum of 100 psf.

C. PROGRAM DEFICIENCY NARRATIVE

1) Space Requirements and Deficiencies

SPACE COMPARISON MATRIX

Current Circle Actual SF to Denali Commission Small Clinic

Alaska Rural Primary Care Facility

Purpose / Activity	Designated Itinerant			Current Clinic			Medium Clinic			Difference		
				Actual Net S.F.			ARPCF SF					
	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries				20,36	1	56	50	1	50			6
Waiting/Recep/Closet				110	1	110	100	1	100			10
Trauma/Telemed/Exam				158	1	158	200	1	200			-42
Office/Exam				0	1	0	150	1	150			-150
Admin./Records/Office				95	1	95	0	0	0			95
Pharmacy/Lab				0	2	0	80	1	80			-80
Portable X-ray							0	0	0			0
Specialty Clinic/Health Ed/Conf.				0		0	150	1	150			-150
Patient Holding/Sleeping Room				78	1	78	80	1	80			-2
Storage				56	1	56	80	1	80			-24
HC Toilet				21	1	21	60	1	60			-39
Janitor's Closet				0		0	30	1	30			-30
Subtotal Net Area						574			980			-406
Circulation & Net/Gross Conv. @45%						188			441			-253
Subtotal (GSF)						762			1421			-659
Mechanical Space @ 8%						15			114			-99
Total Heated Space						777			1535			-758
Morgue (unheated enclosed space)						0	30	1	30			30
Ext. Ramps, Stairs, Loading			HC Accessible			As Required			As Required			As Required

a. Overall Space Deficiencies: 1,109 gsf.

b. Specific Room Deficiencies: There is only one arctic entry, which is dysfunctional. The depth of the entry is too small to effectively shut out the cold. There really is no admin/records area. There really is no pharmacy/lab. There is no specialty clinic/health education/conference. There is only

one toilet room. It is not ADA accessible. It is significantly deficient. There is no patient holding/sleeping room.

- c. Other Size Issues: The back vestibule is too tiny to be effective and opens directly into the trauma/exam room. The door size is too small for gurney access.

2) Building Issues

- a. Arctic Entries: The main entry, which is shared by the tribal offices, is too small. Its depth is too small to stop any cold air from coming in. The back arctic entry, which goes into the trauma/exam room, has doors that are too small and the depth of the arctic entry is too shallow to stop any cold air from coming in.
- b. Waiting / Reception: Waiting is shared with tribal offices, and then moves from the tribal office area into a foyer that seems to have multiple functions from storage to office to files. This is an unacceptable configuration. Patient privacy and confidentiality is non-existent.
- c. Exam / Trauma: The access path to this room is through three other rooms. Although it has its own little arctic entry from the back, it did not appear that this entry was used at all. It would be impossible to get a gurney through the front entry, through the foyer, through the office/kitchen area and into the trauma room.
- d. Exam Room: None.
- e. Office / Administration / Records: There is an office/kitchen where the clinicians were sitting and doing their paper work and trying to communicate. This area also seems to serve as the pharmacy lab and a host of other activities.
- f. Pharmacy / Lab: Shared with office and kitchen.
- g. Specialty Clinic / Health Education / Conference: None.
- h. Patient Holding / Sleeping Room: There was an area designated but it was combined with storage. There was insufficient room for sleeping or to hold a patient.
- i. Storage: There is a storage room (reference plan).
- j. HC Toilet Facilities: None.
- k. Janitors Room: None.
- l. Mechanical/Boiler Room: There is a small boiler room. This room was not well maintained.
- m. Ancillary Rooms: None.

3) Functional Design Issues

There is no ADA accessibility into the facility from either vestibule. There is no ADA accessible bathroom. There is no way to get a gurney into the trauma exam room. There is very little patient confidentiality as patients have to come through the tribal office file and waiting area. There are substantial functional and space deficiencies. There is no pharmacy and lab area. There is no itinerant area. There is no specialty

clinics area (reference space comparison matrix which preceded this narrative and Sheet A2 Existing floor plan).

4) Health Program Issues

- a. Patient comfort and privacy: This was an uncomfortable, overcrowded clinic due to sharing space with tribal office and poor configuration of the space for clinic uses. The central foyer area of this clinic with most other spaces opening off from it also contributed to a lack of patient comfort and privacy.
- b. Medical/Infectious Waste: They are shipped to Norton Sound Health Corporation in Nome.
- c. Infection Control: The age of the facility and the condition of the interior finishes and the lack of ventilation suggest very poor quality infection control in this facility.
- d. Insect and Rodent Control: No problems reported.
- e. Housekeeping: Extremely difficult to lack of storage and no janitor space.

5) Utilities

- a. Water Supply: This is a piped system from the cities water storage tank.
- b. Sewage Disposal: They have a septic holding tank behind the facility, which is pumped and emptied into a city sewage lagoon. The survey team was on site when the tank was being pumped. Strong effluent odors permeated the clinic during pumping.
- c. Electricity: Overhead lines.
- d. Telephone: Overhead lines.
- e. Fuel Oil: Yes.

D. ARCHITECTURAL / STRUCTURAL CONDITION

1) Building Construction

- a. Floor Construction: The floor is constructed of finish, underlayment, sheathing, TJI's, plywood soffit and Batt insulation. The assumed R-value is approximately R-38.
- b. Exterior Wall Construction: Exterior walls appear to be 2x6 with T111 siding, sheathing unknown. Gypsum board and vapor barrier on the inside with an assumed value of R-19.
- c. Roof Construction: The roof is gang nail trusses with R-38 Batt insulation. The photographs of the roof show extensive romex wiring in the attic.
- d. Exterior Doors: Wood with paint, no ADA compliant hardware.
- e. Exterior Windows: Wood casement painted.
- f. Exterior Decks, Stairs, and Ramps: Wood framed, railing do not meet code. The entire access system fails to meet ADA standards.

2) Interior Construction

- a. Flooring: Primarily sheet vinyl.
- b. Walls: Painted gypsum board. Interior partitions are 2X4 construction.
- c. Ceilings: Gypsum board with paint.
- d. Interior doors: Wood with natural finish.
- e. Casework: Residential kitchen type (see photographs).
- f. Furnishings: Are a number of years old, and have seen substantial use.
- g. Insulation: Floor assume R-38, Walls assume R-19, Attic roof insulation R-38. Attic ventilation not verified.
- h. Tightness of Construction: The Teller clinic is a residential-grade structure. Tightness of construction is normal for the type of structure.
- i. Arctic Design: Arctic design is normal for a residential-grade structure. A commercial structure would have accessible interstitial space, both above ceilings and below floors, for systems access as well as larger arctic entries.

3) Structural

- a. Foundations: The floor joists appear to sit on top of the glue laminated beams. The glue laminated beams sit on top of treated wood footing pads, which sit on beach sand gravel. The building did not seem to have racking and settlement issues of major proportions.
- b. Walls and Roof: The walls and roof seem to be in adequate and stable condition.
- c. Stairs, Landings, and Ramps: These elements are non-ADA compliant.

E. MECHANICAL CONDITION

1) Heating System

- a. Fuel Storage and Distribution: An above ground single-wall 1,000 gallon capacity heating oil storage tank installed on wood sleepers serves the clinic heating units. The tank configuration appears to be non-standard and does not appear to conform with the construction and listing requirements for tanks this size. The tank is exposed to vehicle traffic around the building. The distance between the fuel tank and the building is less than the required distance of 5 feet.
- b. Boiler: An oil-fired hydronic boiler serves the building. The boiler and its accessories showed considerable deterioration and the heat generation system is estimated to be nearing its service life.
- c. Heat Distribution System: The building is equipped with a hydronic finned tube heating system distributed throughout the building. The heating distribution piping is uninsulated in the boiler room. The overall system appears to be in serviceable but poor condition.

2) Ventilation System

- a. System: The building is not equipped with mechanical ventilation system. The code required ventilation is satisfied by the fact that most spaces are equipped with operable windows.
- b. Exhaust Air: The restroom is equipped with a small ceiling mounted exhaust fan.

3) Plumbing System

- a. Water System: The building is served by the piped water supply system delivered from the piped municipal water system. The system appears to be in serviceable condition.
- b. Sewer System: The piped building sewer system discharges to a sewage holding tank adjacent to the building.
- c. Fixtures: The fixtures observed at this building are in serviceable condition but the restroom and clinical exam room fixtures do not conform to acceptable American Disability Act access and general patient care requirements.

F. ELECTRICAL CONDITION

1) Electrical Service

- a. The electrical service for this clinic is a 125-amp 120/240-volt AC single phase three wire system.

2) Power Distribution

- a. The Clinic MDP is a 16 circuit Arrow Hart panelboard the MDP currently has 0 spare breaker spaces.
- b. The feeder does not contain a grounding conductor and must rely on the conduit for grounding between the MDP and service equipment.
- c. Marginal clearance is provided to the MDP. The boiler is located in front of the MDP. The MDP must be readily accessible per NEC 240-24.

3) Grounding System

- a. The neutrals and grounds in the MDP are connected to the neutral bus. Neutrals and grounds must be isolated in all panels except service equipment, per NEC 250-142b.
- b. The electrical system does not appear to have a grounding electrode system except for a single ground rod. A grounding electrode system is required, per NEC 250 Part C.
- c. The electrical service does not appear to be bonded to the interior non-current carrying metallic piping. Bonding electrical service to interior metal piping is required, per NEC 250-104.

4) Exterior Elements

- a. The clinic does not have exterior general use receptacles. The lack of exterior receptacles usually forces extension cords to be plugged in inside the building and routed through doorways, which is a violation of NEC Article 400

- b. It is recommended to install individual branch circuits and GFCI protected receptacles for automotive block heaters, commonly known as head bolt heaters.
- c. Exterior lighting is provided by flood light fixtures mounted to the wall adjacent to the entry to the clinic.

5) Electrical devices and lighting

- a. Duplex receptacles are the grounding type.
- b. The total number of receptacles does not appear sufficient for the equipment and loads in place in the clinic
- c. Lighting fixtures throughout the clinic are predominantly 4' surface mounted fluorescent fixtures with wrap around lenses and appear to be in good condition.
- d. The wiring in the clinic is primarily non-metallic sheathed cable (NM). Health Care Facilities are required to have all receptacles and fixed electric equipment, in patient care areas, supplied by circuits in grounded metal raceways with an insulated grounding conductor

6) Emergency System

- a. Self-illuminated exit light fixtures are installed. Exit lighting must be installed and/or powered and provide minimum footcandle (fc) levels, per IBC 1003.2.10 and 1003.2.11. Branch circuits for exit and emergency lighting shall comply with NEC 700-12.
- b. One emergency light fixture is installed in the office area and is not working. Emergency egress shall be powered and provide minimum fc levels, per IBC 1003.2.10 and 1003.2.11. Branch circuits for exit and emergency lighting shall comply with NEC 700-12.

7) Fire Alarm System

- a. Residential type battery powered smoke detectors have been installed throughout the clinic. Residential smoke detectors must be UL listed for use in commercial occupancies, per NEC 110-3b. and meet the requirements of NEC Article 760.

8) Telecommunication

- a. The Data Telecommunications system currently provides service to the telephone system and the "Telemed" remote diagnostic system.
- b. A wall mounted data cabinet is located on the wall above the filing cabinets in the office
- c. The number of data and telephone outlets is not sufficient for the clinic's current and future needs.

G. CIVIL / UTILITY CONDITION

1) Location of Building

- a. Patient Access: Relatively central to the community. Adjacent to most public facilities and services inclusive of the school, city garage and city offices.

- b. Service Access: Roads to the front and behind.
- c. Other Considerations: Good location in terms of sewer and water. This community vicinity is the only area where piped water is currently available.

2) Site Issues

- a. Drainage: Good.
- b. Snow: No reported drifting problems.

3) Proximity of Adjacent Buildings

- a. Across the street from the school complex, and the water storage tank. Close to city services, garages, city office, etc.

4) Utilities

- a. Water Supply: Piped from the cities water treatment next to the water tank.
- b. Sewage Disposal: The clinic has a septic holding tank, and sewage is pumped and trucked to the city sewage lagoon. The survey team was on-site when the tank was being pumped. Strong and objectionable effluent odor permeated the interior of the clinic during the pumping operation.
- c. Electricity: Overhead lines
- d. Telephone: Overhead lines.

H. EXISTING FACILITY FLOOR PLAN (SITE PLAN IF AVAILABLE):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- A1 Existing Site Plan
- A2 Existing Floor Plan
- A3 Existing Typical Wall Section
- A4 Addition to Existing Floor Plan
- A5 Medium Clinic Floor Plan

4. DEFICIENCY EVALUATION

A. DEFICIENCY CODES:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring additional supportable space directly related to an expanded program, personnel or equipment shall be identified in this section; for example additional dental space,

specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. PHOTOGRAPHS

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. COST ESTIMATE GENERAL PROVISIONS

1) New Clinic

a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

- General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
- The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

b. Project Cost Factors

- Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2) Remodel, Renovations, and Additions

- a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.
 - The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
 - Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.
- b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

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- e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.
- f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.
- Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
 - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

5. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

6. NEW CLINIC ANALYSIS

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a village of 268 people (2000 Census). We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 1,989 SF Medium Clinic in Teller is projected to be:

▪ Base Anchorage Construction Cost per s.f.		\$183
▪ Project Cost Factor:	@ 45%	\$ 82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
▪ Multiplier for Village	@ 1.712	\$189
Adjusted Cost per SF		\$454

Projected Cost of a New Clinic: 1,989 s.f. x \$454 = **\$902,370**
(not inclusive of site development costs)

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

▪ Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$309,521
▪ Remodel/Upgrade work (See Def. Code 01)		
100% of clinic 1,421 SF = 1,421 SF @ \$138/SF		\$196,596
▪ Additional Space Required by ARPCF (See Def. Code 06)		
○ Base Anchorage Cost		\$226
Medical Equipment		\$ 32
Additional Costs –		\$ 98
General Requirements	20%	
Estimation Contingency	15%	
○ Multiplier for Village	@1.712	\$253
Adjusted Cost per SF		\$609
Total Addition Cost of 600 SF @ \$609		\$365,197

Projected Cost Factor	@28%	\$243,968
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	

Total Cost of remodel/addition **\$1,115,282**

C. Comparison of Existing Clinic Renovation /Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\mathbf{\$1,115,282 / \$902,370 = 1.24 \times \text{cost of New Clinic}}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	1,989	SF	\$265.00	1.712	\$902,370	yes
Clinic (Non-allowable portion)	0	SF	\$265.64	1.712	\$0	no
Land	15,000	SF	\$2.00	1	\$30,000	yes
Multi-Use Facility Design Cost	0	LS	\$0.00	1	\$0	yes
Multi-Use Facility Construction Cost	0	LS	\$0.00	1	\$0	no
Utility Extension/Improvements	1	LS	\$15,000	1	\$15,000	yes
Road access & parking lot improvements	1	LS	\$5,000	1	<u>\$5,000</u>	yes
Subtotal Project Cost					\$952,370	
Project Management Fees					<u>Unknown</u>	
Total Project Cost					Unknown	

7. CONCLUSIONS AND RECOMMENDATIONS

The existing Teller clinic as compared to the program is deficient by 1,145 gsf in area. It is in a very depleted condition. The cost of renovations and addition is 1.24 times the cost of new construction. Therefore, the consulting team's recommendation is for a new clinic.

Community representatives at the time of the survey expressed interest in a new clinic. However, community sewer and water problems may limit new site options. The community needs to do more work on securing a new site. If a site with sewer and water cannot be found, it may be best to consider funding the more expensive renovation and addition option.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

Appendix B: Reference Photographs